

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 98-328-W/S - ORDER NO. 2000-0401

APRIL 28, 2000

IN RE: Application of Kiawah Island Utility, Inc. for) ORDER
Approval of an Increase in its Water and) APPROVING
Sewer Rates and Charges.) CONTRACT

I. INTRODUCTION

This matter comes before the Public Service Commission of South Carolina (the Commission) by the Application of Kiawah Island Utility, Inc. (KIU or the Company) for approval of a contract between it and TSG Water Resources, Inc. In its Application, the Company is seeking approval to explore the use of additional water storage by using underground aquifers.

By letter, the Commission's Executive Director instructed the Company to publish a Notice of Filing one time in newspapers of general circulation in the Company's service area. The Company complied with this instruction, and furnished affidavits of publication. Petitions to Intervene were received from the Consumer Advocate for the State of South Carolina (the Consumer Advocate) and from the Kiawah Island Property Owners Group (KPOG).

Accordingly, two separate hearings were held on this matter. The main hearing was held on December 16, 1999 at 11:00 AM and a supplemental hearing was held on February 29, 2000 at 2:30 PM in the offices of the Commission at 101 Executive Center

Drive, Columbia, South Carolina, with the Honorable Philip T. Bradley, Chairman, presiding.

With regard to the main hearing on December 16, 1999 at 11:00 AM, G. Trenholm Walker, Esquire represented KIU, Inc. KIU presented the testimony of R. David G. Pyne, Becky Dennis adopting the prefiled testimony of Townsend P. Clarkson, and Clay Duffie. With regard to the Intervenor, Elliott F. Elam, Jr., Esquire and Charles M. Knight, Esquire represented the Consumer Advocate, and Michael A. Molony, Esquire, represented KPOG. KPOG presented the testimony of William H. Miller and Anthony Maglione. The Commission Staff was represented by F. David Butler, General Counsel.

II. SUMMARY OF TESTIMONY

R. David G. Pyne, an engineer with CH2M HILL, Inc. testified with regard to Aquifer Storage Recovery Systems (ASRs) and the suitability of such a system for use on Kiawah Island. Pyne testified that ASR is a water storage technology. Water is stored in a suitable aquifer through a well during times when water is available, and is recovered through the same well during times when water is needed. This water, according to Pyne is typically treated drinking water, and it does not require retreatment following recovery, other than normal disinfection. Usually, the same volume of water that is stored can be recovered, although some water has to be placed underground initially to form a buffer zone, separating the good quality drinking water from the poorer quality water in the aquifer.

The history of this technology in the United States, according to Pyne, goes back to 1969. In South Carolina, ASR systems are in operation for Grand Strand Water and Sewer Authority, Mt. Pleasant Water and Sewer Commission, and Beaufort-Jasper Water Authority. Storage zones utilized in South Carolina include the Black Creek aquifer, the Santee Limestone aquifer, and the Floridan aquifer. Depths of these storage zones range from 250 feet to 1800 feet. Advantages of this technology, according to Pyne, include cost-effectiveness relative to other water supply and storage alternatives, and environmental benefits.

Pyne estimates ultimate storage volumes for Kiawah Island with an ASR system of about 500 million gallons of drinking water. This would help meet peak demands and provide a local source of water for emergencies. Water would be stored in the winter when demand was low and retrieved during the summer when demand is high.

Apparently, ASR has proven to be a successful water technology. According to Pyne, out of the first 32 operating systems, only one has failed to operate successfully.

Pyne notes that a two day workshop was conducted on Kiawah Island during January 1999 to evaluate ASR preliminary feasibility and to plan a logical approach for development of an ASR system. It appears that an ASR system is feasible, although testing is continuing.

Clay Duffie, general manager of the Mt. Pleasant Waterworks also testified. Mt. Pleasant has utilized ASR technology. Mt. Pleasant installed five exploratory wells, which resulted in two producing ASR wells. Mt. Pleasant has been very satisfied, in that ASR wells have been highly cost effective and work well. Duffie stated his opinion that a

working ASR system is suitable for KIU to meet peak seasonal demands, and is probably the least expensive, most readily available and effective solution for meeting peak seasonable and daily potable water demands. Duffie finally stated that Kiawah Island water demand patterns are well suited for this technology.

Becky Dennis, General Manager of KIU, adopted the direct prefiled testimony of Townsend Clarkson. Ms. Dennis explained KIU's current entitlements from its water contract with St. John's Water Company. Ms. Dennis stated that when KIU's system demand exceeds the purchased supply from St. John's, KIU supplements the existing capacity supply from the utility's existing storage capacity. The Company attempts to use no more than one-half of that, leaving the remainder for emergency situations, such as a fire, isolation from the supply source by line break, or extended power interruption to the pumping facilities on Johns Island. KIU may also curb irrigation use, if necessary.

Dennis testified that the Company had examined alternative ways to increase the supply capacity and/or to add additional storage since 1996, by means of a proposed booster station, installing a new supply line directly from the Charleston Commissioners of Public Works to the eastern end of Kiawah Island, and installing an additional supply line from Charleston. While studying these options, KIU was approached by TSG with the ASR approach for "peak shaving." Dennis stated that ASR is the most cost effective, would allow for the most capacity, and would be the least visible or intrusive in the aesthetically sensitive environment of Kiawah Island.

Dennis also noted that the use of the ASR system would allow KIU to be less dependent on the other utilities that supply water to KIU. At this time, KIU is directly

dependent on St. John's Water Company, which furnishes water which is a product of the Charleston Commissioners of Public Works. Any problem with either could adversely impact the supply of water to Kiawah, therefore limiting its supply to the customers of Kiawah, according to Dennis. Also, when transmission lines on Johns Island are damaged, this prohibits KIU from taking water until repairs are made. During these times, according to Dennis, KIU must rely totally on stored capacity, at whatever level it may have at the time.

Accordingly, KIU requests that we approve its contract with TSG for the provision of an ASR system, pursuant to our Regulation 103-743.

KPOG presented the testimony of William H. Miller and Tony Maglione. Miller is generally supportive of exploring the ASR technology, however, he expressed concerns with how the utility is planning on handling the costs relating to both the study and the wells. Miller also expressed a concern with the fact that KIU intended to build one of the two wells on leased land owned by the developer. According to Miller, the fact that immovable assets were on leased land places the utility at the mercy of the developer at the end of the lease. Tony Maglione stated that he had no disagreement with the proposed aquifer storage system concept. Maglione did state that use of the system on a barrier island could cause some concern about salt water intrusion within shallow aquifers, but overall, it was not unreasonable to propose such a storage system on Kiawah Island. Maglione stated further that he did not believe the cost estimates to be unreasonable, but that the Commission should carefully analyze the allocation of the costs.

After the original hearing in this matter, KIU submitted an amendment to a Land Lease Agreement in order to respond to questions about a well for the project being placed on leased land, and because a question was also raised as to the original purpose of the leased land itself, as per the lease. The agreement and the amendment encompassed said land. Because various questions about the agreement and amendment remained, we reopened the Docket, and held a supplemental hearing on February 29, 2000 on the limited issues of the amendment to the Land Lease Agreement, the Land Lease Agreement itself, and the effect of the two on the contract proposed for approval between the Utility and TSG Water Resources, Inc. for underground water storage.

The same attorneys represented the parties in the supplemental hearing, with the exception that Jocelyn D. Green, Esq. also appeared for the Commission Staff, along with F. David Butler, General Counsel. Testimony presented for the supplemental hearing was presented by Townsend P. Clarkson on behalf of KIU, and by William H. Miller on behalf of KPOG.

One of the test wells for the ASR technology was to be located on land leased by KIU from Kiawah Resort Associates (KRA). Townsend Clarkson testified regarding this lease. Clarkson notes the criticism of those who would state that the utility should own the land where its facilities are located, as opposed to leasing it from KRA. However, Clarkson notes that KRA is willing to sell the property to the utility. The Amendment to the lease memorializes an option to buy for the utility. The purchase price would be determined by three independent real estate appraisers. Further, KIU would receive credit

for all value added to the land by its improvements. In addition, KRA pledges a liberal renewal policy towards the lease, should the utility still not choose to purchase said land. Clarkson also cited the second reason for amending the lease as needing to reconcile the provision governing permissible uses with the parties' intentions. Clarkson notes that at the time the lease was entered, KIU did not know about ASR technology, and had not even considered its possibility, so this particular storage was not recited in the original lease. KRA does not have, and has not had, any objection to the use of the site in question for ASR wells.

Clarkson states that it may be advantageous to KIU's having a lease with an option to purchase as opposed to purchasing the site for ASR use. Technology is always changing, and although the site in question best suits KIU at present, it may turn out that new technology or changing circumstances either obviate the need for the site, make another site more desirable, or create even better solutions. Thus, Clarkson contends that a lease may be appropriate under the circumstances.

William Miller, testifying for KPOG at the supplemental hearing, again discussed some of the financial aspects of the project.

III. FINDINGS OF FACT AND CONCLUSIONS OF LAW

1. An aquifer storage recovery system is the most appropriate alternative for "peak shaving" capacity for water for KIU as of the time of the hearings. ASR is the most cost effective, allows for the most capacity, and would be the least visible or intrusive in the aesthetically sensitive environment of Kiawah Island. (Testimony of Dennis). ASR has proven to be a successful water technology, (one unsuccessful project in 32 tries), and

has been utilized successfully by water systems in somewhat close proximity to KIU. (Testimony of Pyne and Duffie.) Use of the technology would allow KIU to be less dependent on other utilities that supply water to KIU. No party opposed the use of the technology per se, although various concerns were expressed about cost allocation, and the fact that KIU intended to build one of the two wells for the project on leased land owned by the developer. (Testimony of Miller and Maglione.)

2. Although one of the wells was to be built on land leased from KRA by KIU, KRA has amended its original lease with KIU to add an option for the utility to buy the property. KIU would receive credit for all improvements made. Another amendment modifies the agreement to specifically allow use of the land for the ASR well. KRA also pledges a liberal renewal policy for the lease, should the utility decide not to buy the property. (Testimony of Clarkson.)

3. We are not troubled by the lease arrangement because of the reasoning cited in Paragraph 2 above. We agree that, in fact, it may be advantageous for KIU to lease the property with an option to buy, in case new technology or changes in circumstances obviate the need for the site, make another site more desirable, or create even better solutions to the need for “peaking” capacity. (Testimony of Clarkson.)

4. Our Regulation 103-743 states that no utility shall execute or enter into any agreement or contract with any person, firm, partnership, or corporation...which would impact, pertain to, or effect said utility’s fitness, willingness, or ability to provide water service,...without first submitting said contract in form to the Commission and obtaining approval of the Commission. We hold that the regulation applies in the

circumstances of this case, since the contract under advisement certainly effects the utility's ability to provide water service, in that the idea of ASR is to provide "peak shaving" water capacity to the utility.

5. We believe that we should approve the contract in principle, because we think that the technology offers many advantages to KIU for the provision of "peak shaving" capacity. It is the most cost effective method, allows for the most capacity, and is the least visible or intrusive technology presently available for its particular purpose. We understand the cost concerns expressed by the witnesses for the intervenor. However, we do not intend to address the costs of the project in this proceeding. We hereby approve the contract, but hold that KIU shall submit any costs therefrom for our examination at its next general rate case. At that time, any issues related to those costs may be examined and debated.

6. The terms of the contract and the contract between KIU and TSG on the matter of ASR are hereby approved in principle. KIU may present its costs related thereto at its next general rate proceeding for consideration by this Commission.

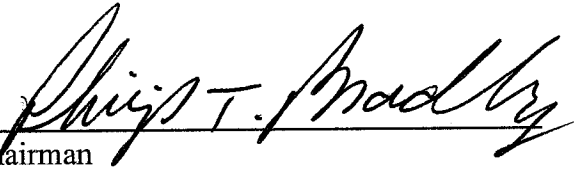
7. Because of a number of questions that have been raised by Intervenors in this and other KIU proceedings about cost allocations and the relationship between KRA and KIU, we hold that Staff shall meet with all interested parties to coordinate a management audit of KIU. Issues to be determined at the meeting will include, but not be limited to the scope of the management audit, and who will be responsible for paying for the management audit.

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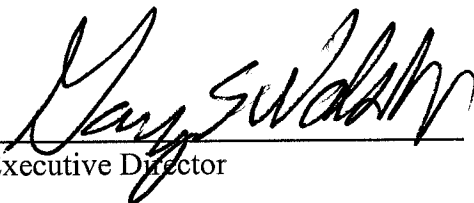
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8. This Order shall remain in full force and effect until further Order of the Commission.

BY ORDER OF THE COMMISSION:


Chairman

ATTEST:


Executive Director

(SEAL)